

→ Series 630

630

Overflow and pressure control valves
made of gunmetal, straightway form
with threaded connections
—externally adjustable—

■ SUITABLE FOR

Liquids	neutral and non-neutral
Air, gases and vapours	neutral and non-neutral



■ EXAMPLES OF USE

For the protection of:

- pumps against overloading in closed circuits for neutral / non-neutral, non-sticking liquids

For the control of:

- systems under pressure for air, neutral / non-neutral gases and vapours

- test rig construction
- process equipment construction
- de-icing technology
- mechanical engineering
- industrial applications

■ APPROVALS

European Pressure Equipment Directive

TR ZU 032/2013 - TR ZU 010/2011

Requirements

PED 2014/68/EU

Classification society

DNV
Lloyd's Register EMEA
American Bureau of Shipping
Bureau Veritas
Russian Maritime Register of Shipping
Registro Italiano Navale

DNV
LR EMEA
ABS
BV
RS
RINA



■ MATERIAL



■ SPECIFICATION



1/2" – 2"



– 20°C bis + 120°C



0,5 – 10 bar

■ MATERIALS

Component	Material	DIN EN	ASME
Inlet body	Gunmetal	CC499K	CC499K
Outlet body	Gunmetal	CC499K	CC499K
Internal parts	Gunmetal	CC499K	CC499K
	Brass	CW617N	CW617N
Valve seat	Stainless steel	1.4404	316 L
Spring	Spring steel with anti-rust protection	1.1200	ASTM A228

Series 630 ■ VALVE VERSION

m	with diaphragm	High-quality, heat-resistant moulded elastomere, fabric-reinforced diaphragm. Valves in straightway form, closed version. Can be adjusted under operating conditions without medium escaping into the atmosphere. Adjustment can be directly read-off an optional pressure gauge (accessory). Optimal control response and large flow volumes even in cases of small pressure differences due to diaphragm operating principle.
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Complete valve cartridge available as replacement part (order code: 630 cartridge-DN.-seal) can be exchanged without removing the valve.

Valves can be delivered unset within a pressure range or set and sealed at the factory (against surcharge).

■ MEDIUM

GF	gaseous and liquid	for water, neutral and non-sticking liquids, compressed air and neutral gases; optionally with FPM elastomere seals for non-neutral media i.e. oils, fuels, oil-laden compressed air, etc.
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■ TYPE OF LIFTING MECHANISM

0	without lifting device
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■ AVAILABLE NOMINAL DIAMETERS AND CONNECTION SIZES

Nominal diameter DN	15	20	25	32	40	50
Inlet	1/2" (15)	3/4" (20)	1" (25)	1 1/4" (32)	1 1/2" (40)	2" (50)
Outlet	1/2" (15)	3/4" (20)	1" (25)	1 1/4" (32)	1 1/2" (40)	2" (50)

■ TYPE OF CONNECTION INLET / OUTLET THREADED CONNECTIONS

BSP-Tm / BSP-Tm	Standard threaded connections	Male thread BSP-T / Male thread BSP-T	DIN EN 10226, ISO 7-1 / DIN EN 10226, ISO 7-1
f / f	Version with female thread available in sizes DN15, DN20 and DN25	Female thread BSP-P / Female thread BSP-P	DIN EN ISO 228-1 / DIN EN ISO 228-1

■ SEALS

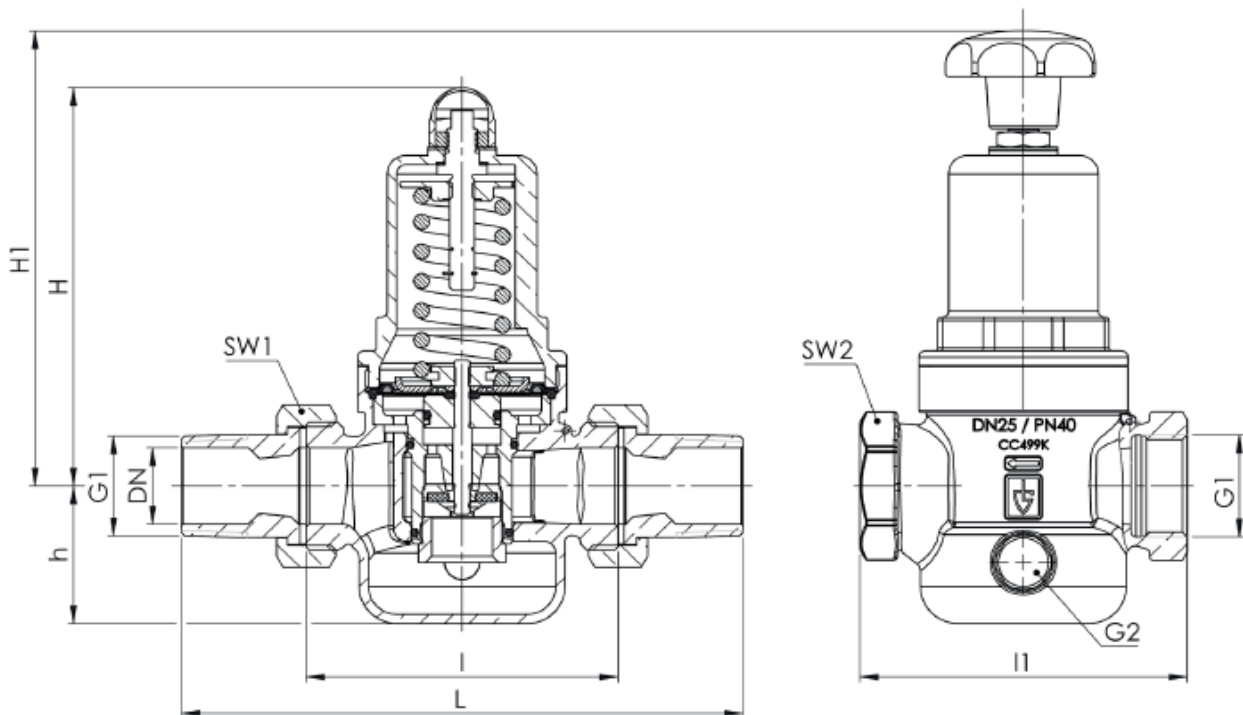
EPDM	Ethylene propylene diene	Elastomere moulded diaphragm and seals approvals according to drinking water directive	-20°C to +120°C (up to 6 bar outlet pressure) -20°C to +95°C (from 6 bar outlet pressure)
FKM	Fluorocarbon	Elastomere moulded diaphragm and seals	-10°C to +120°C (up to 6 bar outlet pressure) -10°C to +95°C (from 6 bar outlet pressure)

■ **NOMINAL DIAMETERS, CONNECTIONS, INSTALLATION DIMENSIONS**

Series 630: Connection, installation dimensions, ranges of adjustment							
Nominal diameter	DN	15	20	25	32	40	50
Inlet DIN EN 10226	G1	1/2" (15)	3/4" (20)	1" (25)	1 1/4" (32)	1 1/2" (40)	2" (50)
Outlet DIN EN 10226	G1	1/2" (15)	3/4" (20)	1" (25)	1 1/4" (32)	1 1/2" (40)	2" (50)
Installation dimensions in mm	L	142	158	180	193	226	252
	I	80	90	100	105	130	140
	I1	85	95	105			
	H	102	102	130	130	165	165
	H1	124	124	161	161	198	198
	h	33	33	45	45	70	70
	SW1	30	37	46	52	65	75
	SW2	28	35	43	48	57	68
Pressure gauge connection	G2	1/4" axial	1/4" axial	1/4" axial	1/4" axial	1/4" axial	1/4" axial
Weight	kg	1,2	1,4	2,4	2,6	5,5	6
Set pressure	bar	0,5-10	0,5-10	0,5-10	0,5-10	0,5-10	0,5-10
Range of adjustment	bar	0,5-2	0,5-2	0,5-2	0,5-2	0,5-2	0,5-2
		1,5-6	1,5-6	1,5-6	1,5-6	1,5-6	1,5-6
		5,5-10	5,5-10	5,5-10	5,5-10	5,5-10	5,5-10
Coefficient of flow K_{vs}	m ³ /h	2,1	2,4	5,1	5,5	10,5	11,5

The K_{vs} value was determined according to DIN EN 60534-2-3. Instructions on how to determine size and capacity are to be found under section 2.

■ **MAIN DIMENSIONS, INSTALLATION DIMENSIONS**



Series 630 ■ INDIVIDUAL SELECTION / VALVE CONFIGURATION

Series	Valve version	Medium	Lifting device	Nominal diameter DN	Connection type		Connection size		Seal	Options	Pressure range / set pressure	Quantity
					Inlet	Outlet	Inlet	Outlet				
630	m	GF	0	25	BSP-Tm	BSP-Tm	25	25	FKM		7,0	1
630	m	GF	0	20	f	f	20	20	EPDM		5,5 - 10	2
630	m	GF	0									
630	m	GF	0									

■ TECHNICAL FINISHES, VARIANTS, ACCESSORIES

S15	Hand wheel (plastic) for tool-free setting of setpressure ¹	☐		☐
S17	Supply with manometers suitable for the valve finish	☐		☐
S71	Preliminary setup for protection against manipulation of the preset pressure (seal)	☐		☐

¹For nominal diameters DN15 to DN50 for the pressure ranges 0,5-2 and 1,5-6,0 bar

■ PROPERTIES

G0X	Especially for gaseous O2 applications by employment of specific materials including oil- and grease free production process	☐	P03	Galvanically nickel-plated finish	☐
P01	Oil- and grease-free production	☐	P04	Chrome-plated finish	☐
P02	Chemically nickel-plated finish	☐	FE	Setting and sealing	☐

■ CERTIFICATES / APPROVALS

C01	Factory certificate acc. DIN EN 10204 2.2 (WKZ 2.2)	☐	C06	ATEX evaluation acc. to 2014/34/EU	☐
C02-1	Test certificate acc. DIN EN 10204 3.1 (WPZ 3.1) for non TÜV-CE valves marking of individual serial number is required	☐	C10	Certificate of oil- and grease free production	☐
C03	Material test certificate acc. DIN EN 10204 3.1 (MPZ 3.1) (pressure retaining part)	☐	C11	Certification of the production process especially for gaseous oxygen applications by employment of specific materials	☐
C05	Sealing material Manufacturer certification (FDA, USP 3, 3-A,...), Please indicate description of certificate:	☐			☐

■ ADMISSIONS / ACCREDITATIONS

AA1	EC Type examination acc. to Directive 2014/68/EU	☐	AK1	Det Norske Veritas (DNV) type approval	☐
AA4	EAC - certificate/declaration with passport for the valve and laser marking of the valve	☐	AK2	Lloyd's Register (LR) type approval	☐
AA11	UK Type examination acc. to Directive UK PESR 2016 No. 1105	☐	AK3	American Bureau of Shipping (ABS) type approval	☐
		☐	AK4	Bureau Veritas (BV) type approval	☐
		☐	AK5	Russian Maritime Register of Shipping (RMRS) type approval	☐
		☐	AK6	Registro Italiano Navale (RINA) type approval	☐
		☐	AL	Individual inspection by notified body inspector – (body to be indicated):	☐

■ CAPACITY TABLE

Series 630: Kv values at 1 bar overpressure												
Nominal diameter DN	15		20		25		32		40		50	
	Air [Nm³/h]		Air [Nm³/h]		Air [Nm³/h]		Air [Nm³/h]		Air [Nm³/h]		Air [Nm³/h]	
Pressure range bar	0,5-2	5,5-10	1,5-6	0,5-2	5,5-10	1,5-6	0,5-2	5,5-10	1,5-6	0,5-2	5,5-10	1,5-6
Set pressure bar	1,5-6	0,5-2	5,5-10	1,5-6	0,5-2	5,5-10	1,5-6	0,5-2	5,5-10	1,5-6	0,5-2	5,5-10
0,5	73		77		189		193		417		445	
1	89		94		231		239		498		537	
1,5	102	103	108	107	264	185	273	196	587	370	624	408
2	117	119	121	126	303	226	314	238	636	429	683	472
3	146		153		282		291		506		557	
4	170		176		330		338		543		615	
5	187		194		367		379		625		684	
5,5	195	139	206	157	386	183	394	186	653	375	719	417
6	203	147	216	163	405	194	418	202	708	395	760	443
7	162		178		223		229		400		502	
8	179		190		259		264		407		517	
9	218		225		285		289		432		564	
10	255		261		303		314		465		601	

Kv values at 1 bar overpressure												
Nominal diameter DN	15		20		25		32		40		50	
	Water [m³/h]		Water [m³/h]		Water [m³/h]		Water [m³/h]		Water [m³/h]		Water [m³/h]	
Pressure range bar	0,5-2	5,5-10	1,5-6	0,5-2	5,5-10	1,5-6	0,5-2	5,5-10	1,5-6	0,5-2	5,5-10	1,5-6
Set pressure bar	1,5-6	0,5-2	5,5-10	1,5-6	0,5-2	5,5-10	1,5-6	0,5-2	5,5-10	1,5-6	0,5-2	5,5-10
0,5	2,7		2,9		5,5		6,2		12,4		12,9	
1	2,9		3,3		6,1		6,9		12,9		13,8	
1,5	3,4	3,1	3,6	3,4	6,6	5,6	7,5	6,4	13,2	9,0	14,4	9,4
2	3,6	3,2	3,9	3,4	6,9	5,7	7,8	6,4	13,5	9,1	14,9	9,4
3	3,3		3,5		5,9		6,5		9,3		9,5	
4	3,4		3,7		6,1		7,2		9,5		9,9	
5	3,3		3,7		6,2		7,5		9,7		10,2	
5,5	3,0	2,3	3,6	2,7	5,8	3,2	6,9	4,1	10,1	7,2	10,5	7,7
6	2,9	2,4	3,6	2,7	5,4	3,3	6,7	4,2	10,4	7,3	10,9	8,0
7	2,4		2,6		3,9		4,5		7,5		8,1	
8	2,4		2,6		3,8		4,4		7,3		7,8	
9	2,3		2,5		3,7		4,2		6,9		7,4	
10	2,2		2,5		3,6		4,0		6,5		7,1	